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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/810,049	03/26/2004	Graziano Marusi	043001/0024 SBP/CEC/JEL	7895

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EXAMINER

NGUYEN, THONG Q

ART UNIT PAPER NUMBER

2872

DATE MAILED: 07/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

H.A

Office Action Summary	Application No. 10/810,049	Applicant(s) MARUSI ET AL.	
	Examiner Thong Q. Nguyen	Art Unit 2872	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Drawings

1. The drawings contained six sheets of figures 1-6 were received on 3/26/2004.

These drawings are objected by the Examiner for the following reason(s).

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the feature related to the plurality of dielectric layers as recited in claim 1 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

4. The disclosure is objected to because of the following informalities: a) The specification is objected to because it does not have the section of "Brief description of the Drawings"; b) Page 2, section [0008], line 4 of the section, what does applicant mean by "UVA"? c) Page 10, section [0030], what does applicant mean by "EN1836"? There are still some grammatical and idiomatic errors in the specification. Applicant should carefully proofread the specification. Appropriate correction is required.

5. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: The specification has not provided a proper antecedent basis for the following features which are recited in the claims.

First, the feature related to the number of layers up to 100 layers as recited in claim 10 (see the objection to the claims as set forth in paragraph 6) in the section of "Claim Objection" below);

Second, the feature related to the activation value which is greater than 90 % and 97% and equal to the activation value of the photochromic lens as recited in claims 12, 13 and 14, respectively (see the objection to the claims as set forth in paragraph 6) in the section of "Claim Objection" below).

Claim Objections

6. The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

In particular, the present claims contain two claims labeled as claim 3. The second claim labeled as claim 3 is now renumbered as claim 4. As a result, the misnumbered claims 1-15 have been renumbered as claims 1-16.

7. Claims 1-3, 7 and 11-15 are objected to because of the following informalities. Appropriate correction is required.

c) In each of claims 11-14, the feature "the photochromic lens" appeared on last two lines of each claim lacks a proper antecedent basis. Should the term "the" in the mentioned feature be changed to —a—to make the claim comply with the requirement of 35 USC 112, second paragraph?

d) In claim 15, it is unclear about the feature thereof "the multi-layer thin film coating has an activation value greater than 25%" (lines 1-2) of the claim. It is unclear about the comparison in value of the activation value. Should the following terms —of the activation value of a photochromic lens—be added at the end of the claim to make the claim comply with the requirement of 35 USC 112, second paragraph?

Double Patenting

8. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

9. Claim 2 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 1. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Claims 1-4, 6, and 9-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Biro et al (U.S. Patent No. 5,661,596).

Biro et al disclose an antireflection film for use with an optical lens. The antireflection film as described in columns 1-2 and shown in figures 2 and 4 comprises four dielectric layers of alternative low and high refractive indices which in combination has a very low reflectivity of order of 0.1% for light of wavelengths from 300 to 400 nm. The material of the layers having low refractive index is SiO₂ as can be seen in column 2, Table 1. Regarding to the number of layers in the film, it is noted that the number of layers in the embodiment 1 described in column 2 is four layers which meets the features recited in present claims 9 and 10. Applicant should note that it was decided in the Courts that "the disclosure in the prior art of any value within a claimed range is an anticipation of that range." See *In re Wertheim*, 541 F. 2d 257, 191 USPQ 90 (CCPA 1976); *Titanium Metals Corporation of America*, 227 USPQ 773 (Fed. Cir. 1985); *In re Petering*, 301 F. 2d 676, 133 USPQ 275 (CCPA 1962).

12. Claims 1-4, 6 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Melzig et al (U.S. Patent No. 4,852,974).

Melzig et al disclose an antireflection multilayered film for use with an optical lens having photochromic properties. The film as described in column 3 and shown in figures 1-5 comprises five dielectric layers of alternative low and high refractive indices which in combination has a very low reflectivity for light of wavelengths from 290 to 400 nm. In particular, the multilayered film provided by Melzig et al

has a reflectivity of less than 4%. The material of the layers having low refractive index is SiO_2 as can be seen in column 3, Table 1. Regarding to the number of layers in the film, it is noted that the number of layers in the embodiment 1 described in column 2 is five layers and the number of layers in the embodiment 2 is seven layers which meets the features recited in present claim 10. Applicant should note that it was decided in the Courts that "the disclosure in the prior art of any value within a claimed range is an anticipation of that range." See *In re Wertheim*, 541 F. 2d 257, 191 USPQ 90 (CCPA 1976); *Titanium Metals Corporation of America*, 227 USPQ 773 (Fed. Cir. 1985); *In re Petering*, 301 F. 2d 676, 133 USPQ 275 (CCPA 1962).

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claims 5 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Biro et al in view of Andreani et al (U.S. Patent No. 6,175,450).

The antireflection multilayered film for use with an optical lens which film has a very low reflectivity in the range of 300-400 nm as provided by Biro et al discloses that the materials of the low and high refractive indices are SiO_2 and Ta_2O_5 , respectively. It does not explicitly disclose that the material of the high refractive index is TiO_2 or ZrO_2 as claimed in present claims 5 and 7,

respectively. However, the use of material of TiO_2 and ZrO_2 for a layer of a high refractive index in a multilayered film in the range of 300–400 nm is known to one skilled in the art as can be seen in the antireflection multilayered film provided by Andreani et al. In particular, in the antireflection multilayered film described in column 5, Andreani et al disclose that the material used in the layer of high refractive index is selected from a group of TiO_2 , Ti_2O_3 , Ta_2O_5 , ZrO_2 , etc...and the material used in the layer of low refractive index is selected from a group of SiO_2 , MgF_2 , ... Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the antireflection multilayered film provided by Biro et al by using material of TiO_2 or ZrO_2 for the layer of high refractive index as suggested by Andreani et al for the purpose of satisfying a particular application. Applicant should also note that it was decided in the Courts that a selection of known material based on its suitability for the intended use is a matter of obvious design choice. See *In re Leshin*, 125 USPQ 416.

15. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Biro et al. The antireflection multilayered film for use with an optical lens which film has a very low reflectivity in the range of 300–400 nm as provided by Biro et al discloses that the number of layers in the film can be four or six layers. See column 2. It does not explicitly state that the number of layers is twelve as claimed in present claim 8. However, the number of layers of the film as claimed is merely that of preferred embodiment and no criticality has been disclosed. The support for that conclusion is found in the present specification in which applicant

has declared that the number of layers is not critical/important as can be seen in the present specification in page 10, section [0030]. It is also noted that such a non-criticality of the number of layers is indeed claimed in the present claims. For instance, the number of layers can be four as claimed in present claim 9 and the number of layers can be up to 100 as claimed in present claim 10. Thus, absent of any criticality, it would have been obvious to one skilled in the art at the time the invention was made to modify the antireflection multilayered film provided by Biro et al by using any combination of numbers of layers as desired for the purpose of adjusting the ability of antireflection light of the film.

16. Claims 11-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Biro et al in view of Andreani et al

The antireflection multilayered film for use with an optical lens which film has a very low reflectivity in the range of 300-400 nm as provided by Biro et al and Andreani et al does not explicitly state that the multilayered film has an activation value greater than 25% or equal to the activation value of a photochromic lens as claimed in present claims 11-15. However, such features are considered as an inherent feature from the use of a multilayered film provided by Biro et al and Andreani et al. The support for that conclusion is found in the structure of the multilayered film provided by Biro et al and Andreani et al comprises a number of alternative low and high refractive indices with the materials of SiO_2 and TiO_2 which is identical to the structure of the film as recited in the present claims. Since a similarity and/or identity in structure will yield the same function and/or

result, one skilled in the art will expect that the activation value of the film provided by Biro et al and Andreani et al is greater than 25% of the activation value of the photochromic lens. If it is not inherent then one skilled in the art will recognize that the change in the activation value of the film with respect to that of a photochromic lens is able to obtain by just adjusting the number of layers and/or the thickness of the layers used to constitute the film. Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the antireflection multilayered film provided by Biro et al and Andreani et al by adjusting the number of layers and/or the thickness of the layers used to constitute the antireflection multilayered film for the purpose of adjusting the activation value of the film with respect to that of the lens which lens is coated by such film.

17. Claims 5 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Melzig et al in view of Andreani et al.

The antireflection multilayered film for use with an optical lens which film has a very low reflectivity in the range of 300-400 nm as provided by Melzig et al discloses that the materials of the low and high refractive indices are SiO_2 and Ti_2O_3 , respectively. It does not explicitly disclose that the material of the high refractive index is TiO_2 or ZrO_2 as claimed in present claims 5 and 7, respectively. However, the use of material of TiO_2 and ZrO_2 for a layer of a high refractive index in a multilayered film in the range of 300-400 nm is known to one skilled in the art as can be seen in the antireflection multilayered film provided by

Andreani et al. In particular, in the antireflection multilayered film described in column 5, Andreani et al disclose that the material used in the layer of high refractive index is selected from a group of TiO_2 , Ti_2O_3 , Ta_2O_5 , ZrO_2 , etc... and the material used in the layer of low refractive index is selected from a group of SiO_2 , MgF_2 , ... Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the antireflection multilayered provided by Melzig et al by using material of TiO_2 or ZrO_2 for the layer of high refractive index as suggested by Andreani et al for the purpose of satisfying a particular application. Applicant should also note that it was decided in the Courts that a selection of known material based on its suitability for the intended use is a matter of obvious design choice. See *In re Leshin*, 125 USPQ 416.

18. Claims 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Melzig et al.

The antireflection multilayered film for use with an optical lens which film has a very low reflectivity in the range of 300-400 nm as provided by Melzig et al discloses that the number of layers in the film can be five or seven layers. See column 2. It does not explicitly state that the number of layers is four or twelve as claimed in present claims 9 or 8, respectively. However, the number of layers of the film as claimed is merely that of preferred embodiment and no criticality has been disclosed. The support for that conclusion is found in the present specification in which applicant has declared that the number of layers is not critical/important as can be seen in the present specification in page 10, section

[0030]. It is also noted that such a non-criticality of the number of layers is indeed claimed in the present claims. For instance, the number of layers can be four as claimed in present claim 10. Thus, absent of any criticality, it would have been obvious to one skilled in the art at the time the invention was made to modify the antireflection multilayered film provided by Melzig et al by using any combination of numbers of layers as desired for the purpose of adjusting the ability of antireflection light of the film.

19. Claims 11-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Melzig et al in view of Andreani et al.

The antireflection multilayered film for use with an optical lens which film has a very low reflectivity in the range of 300-400 nm as provided by Melzig et al and Andreani et al does not explicitly state that the multilayered film has an activation value greater than 25% or equal to the activation value of a photochromic lens as claimed in present claims 11-15. However, such features are considered as an inherent feature from the use of a multilayered film provided by Melzig et al and Andreani et al. The support for that conclusion is found in the structure of the multilayered film provided by Melzig et al and Andreani et al comprises a number of alternative low and high refractive indices with the materials of SiO₂ and TiO₂ which is identical to the structure of the film as recited in the present claims. Since a similarity and/or identity in structure will yield the same function and/or result, one skilled in the art will expect that the activation value of the film provided by Melzig et al and Andreani et al is greater than 25% of the activation

value of the photochromic lens. If it is not inherent then one skilled in the art will recognize that the change in the activation value of the film with respect to that of a photochromic lens is able to obtain by just adjusting the number of layers and/or the thickness of the layers used to constitute the film. Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the antireflection multilayered film provided by Melzig et al and Andreani et al by adjusting the number of layers and/or the thickness of the layers used to constitute the antireflection multilayered film for the purpose of adjusting the activation value of the film with respect to that of the lens which lens is coated by such film.

Conclusion

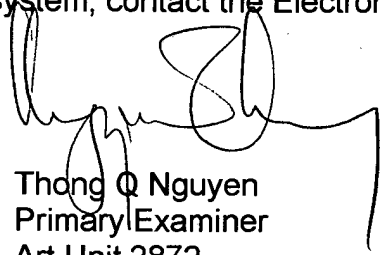
20. The additional references are cited as of interest in that each discloses a multilayers for use with a lens comprises a plural of dielectric layers to reflect an amount less than 15 % of light in the range of 300 to 400 nm.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thong Q. Nguyen whose telephone number is (571) 272-2316. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew A. Dunn can be reached on (571) 272-2312. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2872

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Thong Q. Nguyen
Primary Examiner
Art Unit 2872
